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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,296	06/15/2001	Keiji Takeda	1189-01	8552

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EXAMINER

SINGH, ARTI R

ART UNIT	PAPER NUMBER
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1771

4

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,296

Applicant(s)

TAKEDA ET AL.

Examiner

Ms. Arti Singh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is too long. Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e). Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yotsumoto et al. (USPN 4,596,854). Yotsumoto et al teach an adhesive for fibrous materials, and more particularly to an adhesive which well adheres a polyester fibrous material to rubber and reduces a deterioration of adhesion even under a high-temperature using condition and a deterioration of strength of the polyester fibrous material (col. 1, ln 7-12). According to the invention, there is the provision of an adhesive for fibrous materials, particularly polyester fibrous material, which comprises: (a) component (A) composed of polyhydric phenol-

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polysulfides having the following general formula: see column 2, wherein x is an integer of 1 to 8, y is 2 or 3 and n is 0 or an integer of 1 to 15, in which the polysulfide having the number of polyhydric phenols linked through S_x of not less than 4 is not more than 30%; (b) component (B) composed of resorcin excess resorcin-formaldehyde condensates, which are synthesized at a reaction molar ratio of resorcin to formaldehyde within a range of 1.0:0.1 to 1.0:0.75 in the absence or the presence of a weak acidic catalyst, in which the condensate having the number of resorcins linked through formaldehyde of not less than 5 is not more than 35%; and (c) RFL solution consisting of a resorcin type resorcin-formaldehyde condensate, which is synthesized in the presence of an alkali catalyst at a reaction molar ratio of resorcin to formaldehyde within a range of 1:1-1:7, and rubber latex at a weight ratio of both solid contents of 1:100-35:100; and (d) said components (A)-(C) are mixed so that the weight ratio of solid contents of the components (A) and (B) is (A):(B)=10:100-50:100 and the content of monomer in mixing (A) with (B) is not more than 20% and the mixing ratio is [(A)+(B):(C)=1:0.5-1:2. In this case, polyester fibers are obtained by condensing glycols, such as ethylene glycol, propylene glycol, methoxy-polyethylene glycol, pentaerythritol, etc., with dicarboxylic acids or dicarboxylates, such as terephthalic acid, isophthalic acid, dimethyl terephthalate, dimethyl isophthalate, etc., through esterification reaction or ester interchange reaction into a high degree of polymerization. The most typical fiber is polyethylene terephthalate fiber (column 2, lines 1-49). The method of producing the polyester fibrous material for reinforcing rubber according to instant patent (column 4) is as follows: First of all, the polyester fibrous material is processed by using the adhesive according to the invention. As the application of the adhesive to the fibrous material, there are a method in which the fibrous material is immersed in the adhesive liquid, a method in which the adhesive liquid is applied with a doctor knife or the like, a method in which the

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adhesive liquid is splayed, and the like. Among them, the suitable method may be selected depending upon the situation. Then, the fibrous material coated with the adhesive liquid is subjected to a heat treatment. This heat-treatment may be carried out at a temperature of at least 200 degrees C., preferably 220.degrees C-250 degrees C. Because, the adhesive components according to the invention are diffused into the polyester fiber to develop the adhesive force, so that the better results are obtained as the temperature of the heat treatment becomes higher. Particularly, when the temperature is lower than 200 degrees C., the diffusivity is very poor. While, when the temperature exceeds 250 degrees C., the degradation of properties of the polyester fiber, particularly the deterioration of the strength is unfavorably caused. By the above process, the polyester fibrous material for reinforcing rubber using the adhesive according to the invention can be obtained.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 703-305-0291. The examiner can normally be reached on M-F 8:00am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-873-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Ars
June 2, 2003

Ms. Arti Singh
Patent Examiner
Art Unit 1771